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## The international child poverty gap: Does demography matter?

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# Luxembourg Income Study Working Paper Series

Working Paper No. 441

The International Child Poverty Gap:  
Does Demography Matter?

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**The International Child Poverty Gap:  
Does Demography Matter?\***

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## **The International Child Poverty Gap: Does Demography Matter?**

### **Abstract**

Children experience a higher poverty rate in the U.S. than in most comparable nations—a poverty gap traceable to international differences in income redistribution across households rather than to market earnings. Using Luxembourg Income Study data, we find that child poverty rates are higher in the U.S. than in 13 out of 14 other high-income nations. The poverty rate for American children living with a single female and no other adult (55%) is the highest for any family structures in any nation. Using demographic decomposition, we isolate the contributions of several factors to the overall gap, including family-formation behaviors and living-arrangement decisions that place children in family structures with differential poverty risks (distributional effect), and differences in market earnings and transfer income between households headed by a married couple and other households with children (gradient effects). Distributional effects contribute to the U.S. poverty gap with every nation except the United Kingdom but are relatively small. Gradient effects in income redistribution are also of limited importance, and contribute to the U.S. gap with only some countries. These results demonstrate that overall differences in labor markets and welfare schemes best explain international child poverty gaps.

(193 words)

## **The International Child Poverty Gap: Does Demography Matter?**

In his presidential address to the Population Association of America (PAA), Preston (1984) reported several trends running contrary to the conventional wisdom that the well-being of children and the elderly should be negatively correlated with the relative sizes of their age cohorts. In a context of declining fertility, children's average well-being appeared to be worsening, and one of the most alarming indicators was childhood poverty. For the subsequent two decades, the relative poverty rate for children (under the age of 15) in the United States has remained higher than the rate for any other age group, oscillating between 20% and 25%. Cross-nationally, childhood poverty is also more common in the U.S. than in other high-income nations. Smeeding, Rainwater, and Burtless (2000) found that the U.S. had a higher childhood poverty rate in the late 1990s than Australia, Canada, Israel, and 14 Western European nations in the Luxembourg Income Study (LIS) database.

Attempts to explain the unenviable U.S. leadership in childhood poverty have pointed to the lesser extent of labor market regulation, which permits greater wage dispersion than in some other countries, and at the similarly meager extent of government redistribution through taxes and transfers. In Esping-Andersen's typology of welfare states (1990), the U.S. embodies the "liberal" type most likely to permit wide income inequalities.

In addition, children in the U.S. may be at a demographic disadvantage because of adults' choices about family formation and living arrangements. Garfinkel and

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McLanahan (1986) have long pointed to the fact that poverty rates were higher for households headed by a single mother than for other households. In her PAA presidential address, McLanahan (2004) continued to emphasize that growing up in a household headed by a single mother is associated with fewer resources in the U.S., as well as in other nations. In particular, she suggested that “across all Western industrialized countries, children in single-mother families have much higher poverty rates than children in two-parent families” (McLanahan 2004:619).

Following from McLanahan’s argument, differences in children’s living arrangements may be hypothesized to have a direct “distributional” effect on the international poverty gap. Everything else constant, a higher proportion of children living in a household headed by a single mother in the U.S. compared to other nations should operate to increase the childhood poverty gap between the U.S. and these other nations. On the other hand, some past research implies that such a distributional effect is of limited importance. In their analysis of the sources of child poverty in Western nations, Rainwater and Smeeding (2003) concluded that demographic differences between countries are far less important than differences in the extent of income redistribution through taxes for explaining cross-national differentials in child poverty. Rainwater and Smeeding, however, did not separate the effects of household structure from those of other factors. Thus, the hypothesis about the distributional effect has not yet been rigorously tested.

A second potential objection that is perhaps best dispelled at the outset regards the fact that other nations, particularly in Northern Europe, are known both for low overall child poverty rates and high rates of out-of-wedlock childbearing. Heuveline,

Timberlake, and Furstenberg (2003) have shown, however, that (1) out-of-wedlock births correspond much more frequently to unmarried cohabiting parents in Europe than in the U.S., and that (2) divorce is a more common route to living in a household headed by a single mother than is out-of-wedlock birth, both in Europe and in the U.S. When the likelihood that an out-of-wedlock birth is actually to a non-cohabiting mother is combined with the odds that a child born to married parents will experience their divorce or separation during childhood, children in the U.S. do experience a greater risk of living in household headed by a non-cohabiting single mother for at least some period of time. To have any validity, the demographic argument must take the co-residence of parents and children into account and not rely on parents' marital status alone.

Besides the variance in the distribution of children across married, cohabiting, and single-parent households, nations also differ in the extent to which they target welfare policies towards children at risk. In particular, while the U.S.' overall redistribution scheme is less extensive, it may favor single-mother-headed households with children, relative to households headed by a married couple, more than elsewhere. Indeed, the prevalence of children living in such arrangements may create pressure to redirect policy efforts towards their needs. The opposite has also been forcefully argued, namely that the existence of income support for U.S. single mothers increases the number of single-mother-headed family units (Murray 1984). Regardless of the direction of the causal arrow, it can be hypothesized that the greater risk American children have of living with a single parent (a distribution effect) is compensated by greater reduction through taxes and transfers of the economic disadvantages that children of single parents face on the market (a gradient effect). If they largely cancel each other out, these two effects could leave the

impression that the U.S. scheme is doing less to correct childhood poverty rates than in other countries, when in fact it is (a) more targeted toward single-parent households, and (b) operating in an unfavorable demographic environment.

In this paper, we explicitly focus upon the distribution of children across a variety of living arrangements, and upon the poverty gradients between these arrangements, to assess whether these factors play a significant role in explaining the comparatively high childhood poverty rates in the U.S. We also examine whether income redistribution through taxes benefits some types of households more than others. Using LIS data from the U.S. and 14 other Western and post-socialist nations, we estimate the distribution of children across five types of households, estimate the childhood poverty gradient across these household types both before and after taxes and transfers, and decompose the total childhood poverty rate for a country into the contribution of different factors representing market forces, state characteristics, and living arrangements.

## **DATA AND MEASURES**

Data for this research come from the Luxembourg Income Study or LIS ([www.lisproject.org](http://www.lisproject.org)), a collection of national micro-level surveys on household income. All of the data sets that are part of LIS were collected within the respective countries, often by government agencies.<sup>1</sup> When they are added to LIS, however, the data are “harmonized” in order to facilitate cross-national comparisons. The Luxembourg Income Study is thus uniquely well-suited for studying the household-level determinants of child poverty across nations.

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<sup>1</sup> LIS data on the United States, for example, comes from the Current Population Survey conducted by the Bureau of the Census.



In this paper, child poverty in the United States will be compared to that in Australia, Canada and twelve Western and East European nations (Belgium, Estonia, Finland, France, Germany, the Netherlands, Norway, Poland, Russia, Slovenia, Sweden, and the United Kingdom). Data from most of these nations was collected in approximately 2000.<sup>2</sup>

The definition of child poverty used here is based upon the concepts of “equivalized household income” and “relative poverty”. Equivalized household income is income adjusted for “household characteristics deemed to affect economies of scale and economies of scope as reflected by differences in household size and composition” (Gottschalk and Smeeding 2000:638). Following a very common practice in cross-national poverty research, we utilize a measure where

$$\text{equivalized household income} = \text{disposable income} / \text{household size}^{0.5}$$

This simple correction to household income reflects the intuition that a given level of income does not go as far when divided among many people but that there are economies of scale in sharing a home.

In this paper, we opt for a relative poverty measure, defining children to be poor if their equivalized household income is less than 50% of the median in their home countries. Within the poverty literature, there is a long-standing debate about the merits of relative measures of poverty (such as this one), absolute measures that define

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<sup>2</sup> The most recent LIS data available for two nations that are frequently discussed in the international literature on poverty, France and Australia, are from 1994. Because we utilize a relative measure of poverty (see below), it is possible to compare child poverty rates from different time points, as well as from different nations.

individuals as poor if they live in households with a total income below a fixed threshold, and “hybrid” measures that combine features of both (Foster 1998; Ruggles 1990). One reason to prefer relative measures for cross-national research, however, is that they avoid the indeterminacy inherent in making judgments about whether a given level of income that makes one poor in one nation might be adequate in another nation with a different standard of living (Brady 2003). The specific relative measure adopted here has the twin advantages of being easy to understand and widely used, particularly in literature based on LIS data.

Our typology of children’s living arrangements encompasses several variables that we hypothesize to affect children’s chances of being poor in at least some nations: whether there are two or more adults in the household, as opposed to one; whether the household head is male; and whether the household is headed by a married couple. Taking these issues into account results in a five-part typology: households headed by a married couple, those headed by a cohabiting couple, those headed by a single female with no other adults present, those headed by a single female with other adults present, and those headed by a single male.<sup>3</sup> In the data for Australia and Poland, there are only four categories because cohabiting couples are not distinguished from married couples.

## **METHODS**

We first estimate the distribution of children across the five types of households described above. We then estimate and compare before and after-tax (and transfer)

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<sup>3</sup> While completeness would demand separating single-male-headed households with and without other adults present, we combine these categories because single-male-headed households of any kind with children remain rare in most of the samples studied here.

poverty rates for children residing in each of the five household types. After-tax poverty is based upon net disposable income, which takes into account the income household members earn from the market, the taxes they pay, and the cash and near-cash transfers they receive from the government. Before-tax poverty is based only upon the income the household receives from employment and from other market sources such as interest and rents.

We then decompose the difference between the after-tax child poverty rate in the U.S. ( $P$ ) and in a given other country ( $p$ ) into the contributions of the tax redistribution scheme, the poverty gradient across household types, and the distribution of children across household types. To do so, we follow the decomposition of rates in Das Gupta (1993, see also Smith, Morgan, and Koropeckyj-Cox 1996), which extends the classical two-factor decomposition of a difference between rates in Kitagawa (1955).

Specifically, we first write  $P$  as:

$$P = \sum D_i * P_i \tag{1}$$

where  $D_i$  is the proportion of children in household type  $i$  in the U.S. (e.g.,  $D_1$  is the proportion of children in households headed by a married couple),  $P_i$  is the (after-tax) poverty rate of children in household type  $i$  in the U.S., and  $\sum$  represents the sum across the five household types.

We then re-write  $P$  as:

$$P = \sum D_i * B_i * (P_i / B_i) \tag{2}$$

where  $B_i$  is the before-tax poverty rate of children in household type  $i$  in the U.S. If we define  $A_i$  as the ratio of the after-tax poverty rate to the before-tax poverty rate for children in household type  $i$  in the U.S.,  $P$  then appears as:

$$P = \Sigma D_i * B_i * A_i \quad (3)$$

This first stage will allow us to isolate the direct distributional effect of differences in living arrangements (factor  $D$ ). To also isolate the gradient in government redistribution by household type, we need to further disaggregate the remaining factors. To do so, we define:

$$E_i = B_i / B_1 \text{ and } G_i = A_i / A_1 \quad (4)$$

where  $E_i$  is the before-tax poverty rate of children in household type  $i$  relative to the same rate for two-parent households in the U.S., whereas  $G_i$  is the gradient discussed above. Specifically,  $G_i$  is (1) the ratio of the after-tax poverty rate to the before-tax poverty rate for children in household type  $i$  relative to (2) the same ratio for children in households headed by a married couple in the U.S.  $P$  thus appears as a function of five factors, two scalars,  $B_1$  and  $A_1$ , and three vectors ( $D$ ), ( $E$ ), and ( $G$ ):

$$P = A_1 * B_1 * \Sigma D_i * E_i * G_i \quad (5)$$

We can now decompose the difference between  $P$  and  $p$  into the additive contributions of five factors, two of which, corresponding to the vectors ( $D$ ) and ( $G$ ) respectively, are the distributional effect and the gradient effect of government redistribution; the vector ( $E$ ) is the gradient in pre-tax income. To begin, we treat  $P$  as the product of three terms  $A_1$ ,  $B_1$ , and  $C_1$  and  $p$  as the product of the corresponding three terms  $a_1$ ,  $b_1$ , and  $c_1$ . Das Gupta (1993:8) then shows that:

$$p - P = F_\alpha + F_\beta + F_\omega \quad (6)$$

where  $F_\alpha$  is contribution of the difference between  $A_1$  and  $a_1$ , and  $F_\beta$  is contribution of the difference between  $B_1$  and  $b_1$ . The two terms are equal to:

$$F_\alpha = (a_1 - A_1) * \{[(b_1 c_1 + B_1 C_1)/3] + [(b_1 C_1 + B_1 c_1)/6]\} \quad (7)$$

$$F_{\beta} = (b_l - B_l) * \{[(a_l c_l + A_l C_l)/3] + [(a_l C_l + A_l c_l)/6]\} \quad (8)$$

As for the residual term, it can also be written as:

$$F_{\omega} = (c_l - C_l) * \{[(a_l b_l + A_l B_l)/3] + [(a_l B_l + A_l b_l)/6]\} \quad (9)$$

In addition, since  $C_l = \sum D_i * E_i * G_i$  and  $c_l = \sum d_i * e_i * g_i$ , we can use a second decomposition for the first term in  $F_{\omega}$  (Das Gupta 1993:21):

$$c_l - C_l = f_{\delta} + f_{\varepsilon} + f_{\gamma} \quad (10)$$

with the following equations:

$$f_{\delta} = \{[(\sum d_i * e_i * g_i - \sum D_i * e_i * G_i) + (\sum d_i * E_i * G_i - \sum D_i * E_i * G_i)]/3\} \\ + \{[(\sum d_i * e_i * G_i - \sum D_i * e_i * G_i) + (\sum d_i * E_i * g_i - \sum D_i * E_i * g_i)]/6\} \quad (11)$$

$$f_{\varepsilon} = \{[(\sum d_i * e_i * g_i - \sum d_i * E_i * g_i) + (\sum D_i * e_i * G_i - \sum D_i * E_i * G_i)]/3\} \\ + \{[(\sum d_i * e_i * G_i - \sum d_i * E_i * G_i) + (\sum D_i * e_i * g_i - \sum D_i * E_i * g_i)]/6\} \quad (12)$$

$$f_{\gamma} = \{[(\sum d_i * e_i * g_i - \sum d_i * e_i * G_i) + (\sum D_i * E_i * g_i - \sum D_i * E_i * G_i)]/3\} \\ + \{[(\sum d_i * E_i * g_i - \sum d_i * E_i * G_i) + (\sum D_i * e_i * g_i - \sum D_i * e_i * G_i)]/6\} \quad (13)$$

Combining the two decompositions, we can thus write:

$$p - P = F_{\alpha} + F_{\beta} + F_{\delta} + F_{\varepsilon} + F_{\gamma} \quad (14)$$

with  $F_{\alpha}$  and  $F_{\beta}$  as defined above, and:

$$F_{\delta} = \{[(a_l b_l + A_l B_l)/3] + [(a_l B_l + A_l b_l)/6]\} * f_{\delta} \quad (15)$$

$$F_{\varepsilon} = \{[(a_l b_l + A_l B_l)/3] + [(a_l B_l + A_l b_l)/6]\} * f_{\varepsilon} \quad (16)$$

$$F_{\gamma} = \{[(a_l b_l + A_l B_l)/3] + [(a_l B_l + A_l b_l)/6]\} * f_{\gamma} \quad (17)$$

The three terms  $F_{\delta}$ ,  $F_{\varepsilon}$ , and  $F_{\gamma}$  can in turn be seen as the contributions of the differences between the distributions ( $D$ ) and ( $d$ ), ( $E$ ) and ( $e$ ), and ( $G$ ) and ( $g$ ), respectively. In the decomposition, the contribution of each factor to the poverty gap is assessed by estimating the change in the poverty gap that would occur if the value of the

corresponding factor (scalar or vector) became equal between the U.S. and the other nation while the values of all other factors remained unchanged. The term  $F_{\delta}$ , for instance, represents the change in the poverty gap between the U.S. and another nation if the two countries had the same distribution of children by living arrangements. This term might be thus considered as a measure of the first-order effect of living arrangements rather than of the total effect, as it is plausible that extensive changes in the distribution of children might also result in changes in the values of other factors held constant in the decomposition. We have already considered that variation in the proportion of the population living in family structures with a high risk of poverty might affect redistributive policy, and likewise that demographic behavior is in part influenced by the policy environment in which individuals and households operate. Assessing the full effect rather than the first-order effect of changes in one of the factors requires estimating the elasticity of a factor to changes with respect to other factors, which is beyond the scope of this paper.

## **RESULTS**

Table 1 shows the weighted distribution of children by living arrangement in the United States and the other 14 nations. In comparative perspective, children in the United States are less likely to live with married parents than in most other nations, but the percentage of children living with married parents (72.3%) is nonetheless higher than in Nordic countries (Sweden, 56.0%, Norway, 64.3%, Finland, 69.4%), Estonia (62.7%), and the United Kingdom (67.2%). With the exception of the United Kingdom, however, the proportion of children living in households headed by a cohabiting couple is much smaller in the U.S. than in those countries. The U.S. thus has the second highest

proportion of children living in households headed by a single person rather than a couple (married or not) after the U.K. As for the households typically exhibiting the highest poverty rates, those headed by a single woman with no other adults present, the proportion of children in the U.S. is higher (13.2%) than in most other nations (third after the U.K, 19.0%, and Sweden, 16.2%), but the proportion is also 10% or above in a number of other nations (Canada, Finland, Germany, and Norway). This immediately casts doubt on the hypothesis that living arrangements account for the United States' poor performance in terms of child poverty, at least compared to those nations.

--- Table 1 About Here ---

Table 2 reports relative poverty rates before and after income redistribution through taxes and transfers for all children and for children in different living arrangements. The international estimates for the overall (all arrangements combined) after-tax child poverty rate confirm the frequently-reported finding that children are more likely to be poor in the United States (22.0%) than in other Western and post-socialist societies; only Russia has a higher overall child poverty rate (23.4%). In addition to comparisons across countries, Table 2 also allows for comparisons across household types and between pre- and after-tax child poverty.

--- Table 2 About Here ---

### **Poverty Rates Across Household Types**

Table 2 shows first how children fare across different types of households. In the U.S., not surprisingly, we find children living in households headed by a married couple to experience the lowest actual poverty rate and those living in households headed by a single female with no other adult present to experience the highest actual poverty rate.

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Children living with married parents have a low poverty rate consistently in all countries, and those living with a single female and no other adults have the highest poverty everywhere with the exception of Belgium, where child poverty is highest in households headed by a single male. This exception does not constitute a robust finding, however, given the small sample of such households in Belgium.

The relative poverty of children in other living arrangements varies considerably from country to country. For example, consistent with previous observations that unmarried cohabitation has become virtually indistinguishable from marriage in Sweden (Kiernan 2001; Heuveline and Timberlake 2004), children in households headed by unmarried, cohabiting couples have the same poverty rate as those in households headed by a married couple (2.3%). Similarly, child poverty is even lower in cohabiting couple households in Norway (1.6%) than it is in married couple households (2.1%). In contrast, the poverty rate of children living in households headed by a cohabiting couple in the United States (29.7%) is more than twice the rate for children living in households headed by a married couple (13.9%).

### **International Differences for Specific Household Types**

The unenviable position of the United States nearly always holds true at the level of specific household types. For each type of household structure, there is never more than one other nation with a higher rate of after-tax child poverty than the U.S. This is so, in particular, for the most common childhood living arrangement. The United States' 13.9% poverty rate for children living with a married couple ranks behind only Russia's 20.7%. The U.S. comes behind only Russia, again, for households headed by a cohabiting couple and Australia for those headed by a single male, but the difference is less than one



percentage point in each case. Figures in Table 2 also demonstrate that when it comes to households headed by a single female, children in the U.S. have the highest relative poverty rate. In fact, the majority of children in U.S. households headed by a single female with no other adults are poor; their poverty rate reaches a staggering 55.4%.

Although the United States' position hardly changes depending on the household type under consideration, the cross-national range of child poverty rates is more modest with respect to households headed by a married couple (from 1.9% in Finland to 20.7% in Russia) than with respect to households headed by a single female with no other adults present (from 9.0% in Finland to 55.4% in the U.S.). Another way to document this is by considering the childhood poverty gradient, or the excess poverty of children living in households other than those headed by married couples. This excess poverty reaches 41.5% in the U.S. for children in households headed by a single female with no other adult present (55.4% v. 13.9% for children in households headed by married couples). Children living with single mothers and no other adults experience the most excess poverty within each nation, but across nations the largest gradient is found in the U.S.

### **Poverty Rates Before and After Tax**

Another familiar finding from Table 2 emerges from the comparison of overall pre- and post-tax and transfer child poverty rates. The difference is relatively modest in the U.S., where government redistribution only reduces the overall child poverty rate from 26.3% to 22.0%. The difference is more dramatic in most other countries. The United Kingdom, with the highest pre-tax childhood poverty rate of all the countries considered here (34.4%), has a substantially lower actual (post-tax) childhood poverty rate (15.3%) than the U.S. Similarly, Finland has the lowest actual childhood poverty rate of all the

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countries considered here (2.8%), but without transfers, the rate hypothetically would be 18.6%. Those impressive figures bear repeating, but they are hardly new.

A comparison of the pre- and post-tax child poverty rates for specific household types suggests that U.S. taxes and transfers do little to pull children out of poverty regardless of the household in which they live. In absolute terms, the difference between child poverty before and after redistribution is smaller for households headed by a married couple (from 16.7% to 13.9%) than for households headed by a single female with no other adults present (from 65.2% to 55.4%). The latter decline pales, however, in comparison with the poverty reduction achieved through taxes in similar households in the Nordic countries (from 50.6% to 9.0% in Finland, from 56.1% to 11.6% in Norway, from 51.9% to 13.5% in Sweden) and in the U.K. (from 84.1% to 37.3%). In relative terms, it is more difficult to state whether these nations do comparatively more for those households at the highest risk of being poor than for households headed by a married couple, as children living with married parents face a minimal poverty risk after taxes and transfers (1.9% in Finland, 2.1% in Norway, 2.3% in Sweden).

The decomposition presented in Table 3 allows us to answer more formally this question, that is, whether differential poverty reduction through taxes and transfers across household types actually contributes to higher child poverty rates in the U.S. It also allows us to pull together the three dimensions that we have discussed with respect to Table 2: differences across countries, across household types, and between child poverty before and after redistribution.

### **Decomposition of the International Differences in Overall Child Poverty Rate**

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Table 3 presents the results of the decomposition of the child poverty gap between the United States and each other nation. For each nation, the first row reports the contribution of each of the five factors to the total poverty gap. The second row reports these contributions standardized as a proportion of the overall gap. Columns (2) to (6) represent the contribution of each of the five factors in the decomposition. By construction, their standardized contributions add up to 100%.

--- Table 3 About Here ---

Before any form of income redistribution across households, differences between the market incomes available to children already contribute a large component to differences in child poverty rates between the United States and many nations. This is illustrated in columns (2) and (3), which break down the contribution of the job market to the cross-national poverty gap. Column (2) shows what the contribution of differences in market income to the poverty gap would be if all children fared as those living in households headed by a married couple, whereas column (3) suggests the additional contribution of the gradient of pre-tax incomes across living arrangements. Inequality originating in the job market among households headed by a married couple is generally stronger in the U.S. than in other nations. To take one example, a sizable poverty gap of 6.9% is already visible between the U.S. and Germany, accounting for more than half of the actual poverty gap of 12.9% seen in column (1). In other words, even if everything were the same except for the labor market outcomes of households headed by married couples, the child poverty rate would be 6.9% lower in Germany than in the United States. Similar gaps may be seen between the United States and the Netherlands (+6.7%), Norway (+7.9%), and Slovenia (+5.8%). However, this gap is not universally large. Also,

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the distribution of market income to married-couple households creates *less* child poverty in the U.S. than in Russia (-4.7%) and in the other English-speaking nations—the United Kingdom, Canada, and most notably Australia (-5.7%)—although the differences are subsequently reversed via government redistribution.

Results in Column (3) suggest that the differential in job market performance across living arrangements is not a large factor in the overall child poverty gap. At one end of the spectrum, children who do not live in households headed by a married couple appear relatively worse off in Germany, before income redistribution, than in the U.S.; this reduces the poverty gap between the U.S. and Germany by 3.5%. The opposite is true in the post-socialist nations of Eastern Europe (Estonia, Poland, and Slovenia), where the market income gradient by household type increases the U.S. child poverty gap with these nations by 1.9% to 2.7%, whereas this factor alone would give Russia a 5.9% advantage relative to the U.S.

Column (4) shows the contribution of the distribution of children across household types, that is, the potential direct effect of differences in demographic behavior. Distributional differences also appear to play only a minor role in explaining child poverty gaps. The U.S. is usually at a disadvantage compared to other Western nations due to its distribution of children across household types, but the differences amount to only two to three percentage points in most countries (Australia, Belgium, France, Germany, Norway, Poland). Slightly larger differentials exist between the United States and the Netherlands (+3.2%) and Slovenia (+4.1%). By contrast, a negative contribution to the overall gap appears between the U.S. and the United Kingdom (-2.8%), where children, having a very low likelihood of living with married parents,

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would be better off if their distribution of household arrangements were the same as their American counterparts. In standardized terms (as a percentage of the overall poverty gap), this distributional effect accounts for more than 20% of the overall poverty gap only in Australia (+37.0%), Germany (+21.2%), the Netherlands (+26.6%), Poland (+21.3%), and Slovenia (+27.1%).

Columns (5) and (6) show the contribution of income redistribution across households through taxes and transfers. Similarly to column (2) for job-market inequality, column (5) suggests what the contribution of income redistribution to the overall gap would be if all children benefited as do children living in households headed by a married couple. Analogously to column (3), column (6) accounts for the differential effect of taxes and transfers on different categories of households with children and can be interpreted as the contribution of the gradient across households with respect to poverty reduction through government redistribution.

The results in column (5) show that cross-national differences in redistribution to children living with married couples account for a major portion of many nations' poverty gaps with the U.S. Although the contribution of this factor is relatively modest in the East European nations—only +5.8% in Slovenia, +3.5% in Estonia, +1.9% in Poland, and even negative (-4.4%) in Russia, in other nations it ranges from 4.1% in the Netherlands to more than ten percentage points in Finland (+14.7%), France (+10.5%), Germany (+10.1%), Sweden (+13.7%), and the U.K. (+10.5%). In all nations, the contribution of this factor is in the same direction as the overall gap (it is only negative in Russia). In standardized terms, the contribution amounts to more than half of the overall

gap everywhere except Estonia, Poland, Slovenia, and more surprisingly, the Netherlands.

Contrary to expectations, the gradient in government redistribution by household type shown in column (6) rarely plays a large role in ameliorating differences in child poverty between the U.S. and other nations. Moreover, the change in the child poverty gradient attributable to taxes and transfers is just as likely to be unfavorable as to be favorable to children in the United States. On the one hand, the gradient across children's living arrangements in government redistribution reduces the U.S. poverty gap with France, Germany, and Slovenia by nearly three percentage points (-2.6% to -2.9%). On the other hand, this factor increases the gap with 8 of the 14 nations studied here. Only in Poland, however, does it amount to more than two percentage points (+2.9%).

## **DISCUSSION**

Our results shed light on a well-known, yet still discomfoting statistic: 22.0% of children in the U.S. are poor in relative terms, a higher proportion than children in Australia, in Canada, and 11 of the 12 European nations considered here—the sole exception being Russia. Across living arrangements, child poverty rates for American children are always among the highest. Second only to Russia in households headed by a married or a cohabiting couple and to Australia in households headed by a single male, American children are the poorest among those considered here when living with a single female. The majority of American children living in households headed by a single female with no other adults present are poor, and their poverty rate (55.4%) is the highest of any living arrangement for children in any of the nations considered here.

As for the factors contributing to these sobering figures, our results harmonize with earlier analyses (Rainwater and Smeeding 2003) suggesting that these differentials are mainly explained by *overall* differences between countries in market outcomes and, more than anything else, in the anti-poverty effectiveness of tax and transfer policy. The pure distributional effect often operates in the expected direction; child poverty is higher in the United States than in most other nations considered because more children live in disadvantaged household types. However, this factor has a limited impact. The prevalence of children in households with a single female and no other adult contributes to the United States' poverty gap with most other nations analyzed here, with the exception of the United Kingdom, but distributional differences in children's living arrangements account for over 20% of the overall poverty gap (in standardized terms) in only a few countries (Australia, Germany, the Netherlands, Poland, and Slovenia). In four of these countries, moreover, differences in children's living arrangements account for less of the poverty gap than income redistribution does.

Contrary to the perception that single mothers with children reap most of the benefits from government anti-poverty dollars, we also do not find that the U.S. fares better than most countries in reducing the economic disadvantage that these families face on the market. The extent to which children living in single-female-headed homes and in other non-marital households benefit more from government redistribution than children in households headed by a married couple is greater in the U.S. than in a few countries, especially (in this analysis) Germany. In the broader international context, however, redistribution towards children in other living arrangements is not disproportionately generous. The gradient of redistribution actually benefits children who do not live in

households headed by a married couple more in Estonia, Poland, Russia, Belgium, Norway, the Netherlands, and the United Kingdom than in the United States. Overall, the redistribution gradient across living arrangements is rarely a major factor explaining the child poverty gap between the U.S. and other nations considered.

One limitation that must be acknowledged is that we have only taken cash and near-cash redistribution to families with children into account. Garfinkel, Rainwater, and Smeeding (2004) have demonstrated that the United States' welfare state expenditures more closely resemble those of other developed nations if in-kind services like education, health, housing, and childcare are considered as well. Considering that some in-kind benefits are particularly targeted towards low-income children in the United States (*e.g.* higher earning families are ineligible for Medicaid and SCHIP), it is possible that children of U.S. single mothers receive more favorable treatment than the analysis has implied. However, considering that there are numerous unsolved problems in measuring in-kind benefits and in assigning monetary values to them (Garfinkel, Rainwater, and Smeeding 2004), we chose to focus upon cash and near-cash redistribution, by far the most common practice in poverty research.

While our focus was on comparing the U.S. to other nations, this work contributes to the continuing debate, inspired by the seminal work of Esping-Andersen (1990), over what "varieties" of welfare capitalism exist (Hicks and Kenworthy 2003). With the exception of Russia, the three nations with the smallest poverty gap with the U.S. are the three English-speaking nations: Australia (5.9%), the United Kingdom (6.7%), and Canada (7.1%). The poverty gap with the United Kingdom is 2.8% *lower*, however, than it would be if children were identically distributed across living arrangements. At the



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other end of the spectrum, the largest poverty gaps are with Sweden (17.7%), Norway (18.5%), and Finland (19.1%). In all three countries, the overall generosity of income redistribution through taxes and transfers is the main factor. These results are largely consistent with Esping-Andersen's (1990, 1999) characterization of liberal/residual and socialist/universalist welfare regimes. Notable differences include the Netherlands, which Esping-Andersen classified as socialist but which does not match the child poverty patterns of the three Nordic countries, and the U.S., which looks to be in a category of its own as far as child poverty rates are concerned.

The third category in Esping-Andersen's classification is the conservative/social insurance welfare regime, and the corresponding countries in our analysis are Belgium, France and Germany. All three countries are characterized here by medium poverty gaps with the U.S.—between 12.9% (Germany) and 14.3% (Belgium)—in which the largest factor is income redistribution assessed from the standpoint of children in households headed by a married couple. Note, however, that the U.S. poverty gap with Germany is actually reduced by the gradients across living arrangements in market-based poverty (e.g., before taxes and transfers) and in income redistribution through taxes and transfers. In this sense, child poverty patterns in Germany—children in households headed by married couples having relatively low market income poverty while being also disproportionately favored by the transfer system—are most consistent with the characterization of a conservative welfare state where policy is designed to promote the traditional family. It is notable that the Netherlands also appears fairly conservative by this measure; Dutch children in married couple households have low pre-tax poverty, and

children in other living arrangements are not favored by tax and transfer policy, compared to those in the United States.

How do the nations of Eastern Europe, which were not included in Esping-Andersen's scheme, compare? First, Russia is an outlier, the only nation in these analyses with a higher overall child poverty rate than the U.S. The other three nations of Eastern Europe in our analysis (Estonia, Poland, and Slovenia) also form a relatively distinct group in that the extent of income redistribution, as assessed from the standpoint of children living in households headed by a married couple, is not as different from the U.S. as in some other nations. However, the poverty gradients between children in married couple households and others are more important for explaining the poverty gaps with Poland and Estonia than they are in accounting for most other poverty gaps. Relatively generous treatment of children who do not live with married parents, which was hypothesized to characterize the U.S., actually appears to be most distinctive of Eastern European welfare states, if such a statement may be made on the basis of the results from only two nations. As a result, Polish children who live in single-male-headed households (many of whom are probably living with two cohabiting parents) even have a lower risk of poverty than do those living with married parents. We leave it to others to determine more fully whether post-socialist Eastern European regimes merit being spoken of as having their own, unique type of welfare capitalism.

In decomposing the comparatively high child poverty rates of the U.S. in ways that previous analysts had not, we focused on two possible mitigating factors. We asked whether income redistribution in the U.S. operates in a less favorable demographic environment because of a high proportion of children in households headed by single

mothers. We also asked whether this factor offset a potentially greater reduction of the differences in market-based poverty risks for children in such households in the U.S. than in comparable nations. The results provide little comfort; the U.S. demographic disadvantage is quantitatively limited, and children in the households most susceptible to poverty are not really faring better, relative to children in households headed by a married couple, than in comparable countries.

We conclude that high child poverty in the United States is not primarily driven by the prevalence of single mother-headed families, nor by a scheme of income redistribution more oriented towards those families than in other nations. Although children of single parents incontrovertibly face an elevated risk of poverty in the United States, as in other developed nations, its poor international ranking is not mainly a matter of demography. It has more to do with cross-national differences in overarching welfare policies and labor market institutions. The U.S.' poor relative standing in child poverty, and its long-term consequences, is thus quite amenable to policy intervention, presuming that policymakers have more control over welfare and labor market factors than over individual adults' family-formation behaviors and living-arrangement decisions.

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**Table 1. Distribution of Children by Country and Household Type**

Country	Measure	Household type					
		All	Married Couple	Cohabiting Couple	Single Male Head	Single Female Head, No Other Adults	Single Female Head and Other Adults
US 2000	Weighted N	34589	25008	1522	1314	4566	2179
	Weighted %	100.0	72.3	4.4	3.8	13.2	6.3
Australia 1994	Weighted N	4548	3989	a	77	387	96
	Weighted %	100.0	87.7		1.7	8.5	2.1
Belgium 1997	Weighted N	2587	2212	98	49	168	62
	Weighted %	100.0	85.5	3.8	1.9	6.5	2.4
Canada 2000	Weighted N	17513	12802	1751	683	1751	543
	Weighted %	100.0	73.1	10.0	3.9	10.0	3.1
Estonia 2000	Weighted N	4230	2652	694	68	537	283
	Weighted %	100.0	62.7	16.4	1.6	12.7	6.7
Finland 2000	Weighted N	7386	5126	1152	162	842	96
	Weighted %	100.0	69.4	15.6	2.2	11.4	1.3
France 1994	Weighted N	7465	5845	866	7	530	164
	Weighted %	100.0	78.3	11.6	0.1	7.1	2.2
Germany 2000	Weighted N	5744	4480	482	63	620	98
	Weighted %	100.0	78.0	8.4	1.1	10.8	1.7
Netherlands 1999	Weighted N	3081	2536	280	18	213	34
	Weighted %	100.0	82.3	9.1	0.6	6.9	1.1
Norway 2000	Weighted N	9144	5880	1682	256	1180	146
	Weighted %	100.0	64.3	18.4	2.8	12.9	1.6
Poland 1999	Weighted N	28406	25082	a	511	1619	1193
	Weighted %	100.0	88.3		1.8	5.7	4.2
Russia 2000	Weighted N	1962	1452	155	69	181	106
	Weighted %	100.0	74.0	7.9	3.5	9.2	5.4
Slovenia 1999	Weighted N	2364	1894	258	45	57	99
	Weighted %	100.0	80.1	10.9	1.9	2.4	4.2
Sweden 2000	Weighted N	7250	4060	1675	225	1175	123
	Weighted %	100.0	56.0	23.1	3.1	16.2	1.7
UK 1999	Weighted N	14955	10050	1346	314	2841	404
	Weighted %	100.0	67.2	9.0	2.1	19.0	2.7

Note: All data are drawn from the Luxembourg Income Study.

a = Married and cohabiting couples are grouped together in the data for Australia and Poland.

**Table 2. Actual (After Tax/Transfer) and Market (Pre-Tax/Transfer) Child Poverty Rates by Household Type**

Country	Household type					
	All	Married Couple	Cohabiting Couple	Single Male Head	Single Female Head, No Other Adults	Single Female Head and Other Adults
Actual child poverty rates (%)						
US 2000	22.0	13.9	29.7	25.6	55.4	36.9
Australia 1994	16.0	12.1	a	25.8	51.6	27.2
Belgium 1997	7.7	7.0	10.9	19.0	9.3	12.2
Canada 2000	14.9	10.4	14.4	13.3	48.3	16.8
Estonia 2000	13.6	10.2	15.5	10.9	27.3	15.2
Finland 2000	2.8	1.9	3.0	2.1	9.0	0.0
France 1994	7.9	5.2	11.7	13.3	27.3	19.0
Germany 2000	9.0	4.1	12.0	10.0	42.1	11.3
Netherlands 1999	9.8	6.6	15.9	11.0	38.4	16.0
Norway 2000	3.4	2.1	1.6	5.4	11.6	8.6
Poland 1999	12.7	12.2	a	10.5	20.1	15.1
Russia 2000	23.4	20.7	30.6	16.6	41.0	24.9
Slovenia 1999	6.9	5.6	7.4	16.8	28.8	14.4
Sweden 2000	4.2	2.3	2.3	4.2	13.5	7.1
UK 1999	15.3	9.2	15.0	21.4	37.3	9.8
Market child poverty rates (%)						
US 2000	26.3	16.7	35.1	30.7	65.2	47.0
Australia 1994	28.4	22.3	a	46.8	79.5	62.5
Belgium 1997	18.9	15.9	17.9	23.1	45.2	53.5
Canada 2000	24.0	17.0	26.6	22.6	65.2	47.5
Estonia 2000	21.2	15.1	22.8	47.1	40.6	31.5
Finland 2000	18.6	13.2	18.0	22.0	50.6	30.9
France 1994	17.7	13.7	20.0	17.9	48.4	46.4
Germany 2000	18.0	10.2	22.3	30.4	65.5	42.4
Netherlands 1999	15.2	10.5	18.5	28.5	58.1	54.9
Norway 2000	14.3	7.1	7.1	22.9	56.1	33.4
Poland 1999	19.4	16.4	a	30.3	42.3	47.5
Russia 2000	23.9	20.5	26.7	25.2	40.1	37.6
Slovenia 1999	12.0	10.6	11.1	22.1	25.9	28.4
Sweden 2000	18.7	11.7	9.9	20.4	51.9	51.9
UK 1999	34.4	19.2	33.4	53.4	84.1	51.3

a = Married and cohabiting couples are grouped together in the data for Australia and Poland.



**Table 3. Decomposition of Factors Affecting Differentials in Child Poverty between the US and Other Countries**

Country	Total Difference (1)	Market Income Poverty, Married Couple HHs <sup>a</sup> (F $\beta$ ) (2)	Household Type Gradient in Market Income Poverty (F $\epsilon$ ) (3)	Distribution of Children by Household Type (F $\delta$ ) (4)	Redistribution, Married Couple HHs <sup>a</sup> (F $\alpha$ ) (5)	Household Type Gradient in Redistribution (F $\gamma$ ) (6)
<b>Australia 1994</b>						
Unstandardized	5.9	-5.7	1.1	2.2	8.2	-0.7
Standardized	100.0	-96.5	19.1	37.0	139.0	-12.2
<b>Belgium 1997</b>						
Unstandardized	14.3	0.7	1.2	2.2	8.4	1.7
Standardized	100.0	4.7	8.5	15.3	58.6	12.0
<b>Canada 2000</b>						
Unstandardized	7.1	-0.4	0.9	0.6	5.6	-0.2
Standardized	100.0	-5.9	12.6	8.2	79.6	-2.3
<b>Estonia 2000</b>						
Unstandardized	8.4	1.7	2.7	-0.6	3.5	1.2
Standardized	100.0	20.7	31.8	-7.3	41.7	13.8
<b>Finland 2000</b>						
Unstandardized	19.1	2.5	0.7	1.5	14.7	0.0
Standardized	100.0	12.9	3.6	7.9	76.7	0.2
<b>France 1994</b>						
Unstandardized	14.0	2.7	1.0	2.4	10.5	-2.7
Standardized	100.0	19.3	7.2	17.4	74.7	-19.2
<b>Germany 2000</b>						
Unstandardized	12.9	6.9	-3.5	2.7	10.1	-2.6
Standardized	100.0	53.6	-27.3	21.2	78.5	-19.9

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**Table 3 (cont.)**

Country	Total Difference (1)	Market Income Poverty, Married Couple HHs <sup>a</sup> (Fβ) (2)	Household Type Gradient in Market Income Poverty (Fε) (3)	Distribution of Children by Household Type (Fδ) (4)	Redistribution, Married Couple HHs <sup>a</sup> (Fα) (5)	Household Type Gradient in Redistribution (Fγ) (6)
Netherlands 1999						
Unstandardized	12.2	6.7	-2.2	3.2	4.1	0.4
Standardized	100.0	55.1	-17.8	26.6	34.1	3.0
Norway 2000						
Unstandardized	18.5	7.9	-2.3	2.4	9.3	1.7
Standardized	100.0	42.6	-12.5	13.2	50.2	8.9
Poland 1999						
Unstandardized	9.2	0.3	1.9	2.0	1.9	2.9
Standardized	100.0	3.1	21.0	21.3	20.3	31.7
Russia 2000						
Unstandardized	-1.5	-4.7	5.9	0.6	-4.4	0.9
Standardized	100.0	325.9	-405.5	-40.3	306.6	-61.1
Slovenia 1999						
Unstandardized	15.0	5.8	2.2	4.1	5.8	-2.9
Standardized	100.0	38.3	14.8	27.1	38.5	-19.3
Sweden 2000						
Unstandardized	17.7	3.9	0.7	1.1	13.7	-1.0
Standardized	100.0	22.0	3.7	6.1	77.2	-5.4
UK 1999						
Unstandardized	6.7	-2.7	-0.9	-2.8	10.5	1.8
Standardized	100.0	-41.1	-12.9	-42.3	157.4	27.1

<sup>a</sup>HHs = households